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GASTROENTEROLOGY & HEPATOLOGY | RESEARCH ARTICLE

Medical malpractice litigation pertaining to intestinal obstruction in Japan: 20-year review of civil court cases

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Abstract: Background: Intestinal obstruction (IO) is one of the most common conditions managed by Medical doctors (MDs).

Aim: We undertook a review of Japanese civil court trials that involved IO.

Methods: A listing of Japanese civil court trials pertaining to IO from 1997 through 2016 was retrieved from a computerized legal database, Westlaw Japan.

Results: A total of 22 cases of malpractice litigation were identified. The most common subspecialty of the defendants was surgery including gastroenterological surgery, with 10 (40%) cases, followed by internal medicine including gastroenterology ($n = 6$; 27%), and pediatrics ($n = 2$; 9%). The most common allegation was delayed diagnosis and consequent inappropriate treatment (73%) followed by delayed diagnosis and referral to another hospital (9%) and inappropriate follow-up after surgical operation (9%). In total, 14 (64%) cases were decided in favor of the plaintiff (i.e. patient side). The median amount of court-ordered compensation medical institutions had to pay was 32,000,000 JPY (US\$290,000).

ABOUT THE AUTHORS

Toru Hiyama The number of medical malpractice claims against MDs has been increasing in Japan as well as other countries. Medical malpractice litigations have been of great interest to many MDs, and medical staff have focused on risk management activities to reduce medical malpractice. Furthering the awareness of the risk may be one method of reducing the number of malpractice claims. We have researched this issue and published papers on malpractice litigations associated with gastroenterology (*Dig Liver Dis* 2016;48:687, *Scand J Gastroenterol* 2015;50:619, *Am J Gastroenterol* 2012;107:143, *Am J Gastroenterol* 2009;104:251, *Am J Gastroenterol* 2006;101:685, etc.). IO is one of the most common conditions managed by MDs. We focused on malpractice litigations associated with IO in this paper. Our data may aid in the design of risk prevention strategies to be used by MDs in treating IO.

PUBLIC INTEREST STATEMENT

Intestinal obstruction (IO) is one of the most common conditions managed by medical doctors (MDs). We undertook a review of Japanese civil court trials that involved IO. A listing of Japanese civil court trials pertaining to IO from 1997 through 2016 was retrieved from a computerized legal database, Westlaw Japan. A total of 22 cases of malpractice litigation were identified. The most common subspecialty of the defendants was surgery including gastroenterological surgery, with 10 (40%) cases, followed by internal medicine including gastroenterology ($n = 6$; 27%), and pediatrics ($n = 2$; 9%). The most common allegation was delayed diagnosis and consequent inappropriate treatment (73%) followed by delayed diagnosis and referral to another hospital (9%) and inappropriate follow-up after surgical operation (9%). In total, 14 (64%) cases were decided in favor of the plaintiff (i.e. patient side). Our data may aid in the design of risk prevention strategies to be used by MDs in treating IO. Continued training in timely diagnostic and best treatment techniques remains the principal method of preventing disputes.

Conclusion: Our data may aid in the design of risk prevention strategies to be used by MDs in treating IO. Continued training in timely diagnostic and best treatment techniques remains the principal method of preventing disputes.

Subjects: Health Conditions; Medicine; Dentistry; Nursing & Allied Health; Medicine

Keywords: malpractice; litigation; intestinal obstruction; Japan

1. Introduction

The number of medical malpractice claims against medical doctors (MDs) has been increasing in Japan as well as other countries. Medical malpractice litigations have been of great interest to many MDs, and medical staff have focused on risk management activities to reduce medical malpractice (Adams, Elmunzer, & Scheiman, 2014; Choudhry et al., 2016; Hiyama, Yoshihara, Tanaka, & Chayama, 2009, 2012; Hiyama & Yoshihara, 2015, 2016; Sasao et al., 2006; Schaffer et al., 2017). Furthering the awareness of the risk may be one method of reducing the number of malpractice claims.

Intestinal obstruction (IO) is one of the most common conditions managed by MDs. In the case of strangulation IO, emergent surgery is needed to prevent patient death. In the US, more than 300,000 laparotomies for IO are carried out annually (Maung et al., 2012). Sometimes, a patient can die even after the surgical procedure, and the family might be dissatisfied with the results. Although IO is one of the most common conditions associated with malpractice litigations, there is only one report from the US on IO-related malpractice litigation (Choudhry et al., 2016). Little is known about the allegations underlying malpractice litigations in Japan or about those directly pertaining to IO. We therefore undertook a review of Japanese civil court trials that involved IO. To our knowledge, this is truly the first report on the issue in a country other than the US.

2. Methods

A listing of Japanese civil court trials pertaining to IO from 1997 through 2016 was retrieved from a computerized legal database, Westlaw Japan. Inclusion criteria were 1) IO as the main condition of the case, 2) MD as a defendant, 3) medical malpractice cases, and 4) cases with known outcomes.

Published reports of court decisions in these cases were then obtained from volumes of judicial precedents, and medical information was abstracted from these precedents. Extracted data included patients' demographics, subtype of IO such as simple or strangulation, chief allegation, geographic location, court's decision, and year the decision was made.

3. Results

A total of 22 cases of malpractice litigation were identified. Patient age (mean \pm standard deviation), which was available in 19 (86%) cases, was 51 ± 24 years. Twenty-one (95%) cases involved adult patients, and only one case of pediatric IO was litigated. Twelve (55%) patients were male (sex was missing in 2 patients). Strangulation IO was the most common subtype ($n = 15$; 68%), followed by long-term simple IO ($n = 4$; 18%), acute superior mesenteric artery occlusion ($n = 2$; 9%), and cancer-related IO ($n = 1$; 5%). Among them, 17 (77%) patients had died. The hospital lost in 14 (64%) cases and won in 8 (36%) cases.

Nineteen (86%) cases named only one defendant, and the remaining 3 (14%) cases named two defendants. The most common subspecialty of the defendants was surgery including gastroenterological surgery, with 10 (40%) cases, followed by internal medicine including gastroenterology ($n = 6$; 27%), and pediatrics ($n = 2$; 9%) (Table 1).

The most common allegation was delayed diagnosis and consequent inappropriate treatment (73%) followed by delayed diagnosis and referral to another hospital (9%) and inappropriate

Table 1. Specialty of defendant named in malpractice litigation

Defendant specialty	No (%)
Surgery including gastroenterological surgery	10 (40)
Internal medicine including gastroenterology	6 (27)
Pediatrics	2 (9)
Anesthesiology	1 (4)
Psychiatry	1 (4)
Nurse	1 (4)
Unknown	4 (16)
Total	25 (100)

Table 2. Allegation by plaintiff

Chief allegation	No (%)
Delayed diagnosis and consequent inappropriate treatment	16 (73)
Delayed diagnosis and referral to another hospital	2 (9)
Inappropriate follow-up after surgical operation	2 (9)
Inappropriate treatment	1 (4)
Inappropriate anesthesia	1 (4)
Total	22 (100)

follow-up after surgical operation (9%) (Table 2). In one case, the patient's family complained that the nurse should have appropriately informed the surgeon in charge of the patient's condition.

In total, 14 (64%) cases were decided in favor of the plaintiff (i.e. patient side). The median amount of court-ordered compensation medical institutions had to pay was 32,000,000 JPY (US \$290,000) (interquartile range, 9,700,000 JPY (US\$88,000)–58,000,000 JPY (US\$530,000)).

4. Discussion

Medical malpractice is a predominant concern of MDs in Japan as in Western countries (Elli et al., 2013; Hiyama et al., 2006). Clinical risk management is the process of collecting, evaluating, and applying data to reduce the frequency of preventable patient injuries. Although information on general risk management is abundant in the medical and lay literature, published material specific to IO is limited. MDs need an understanding of malpractice allegations to develop appropriate risk reduction strategies.

4.1. Differences in litigation between the US and Japan

Choudhry et al. (2016) reported the medical malpractice litigations pertaining to IO in the US. Based on that study, there are several differences between the US and Japan.

The first difference relates to the number of defendants named. In the US, 77% of cases named more than one defendant, whereas in Japan, only 14% of cases named multiple defendants, and the difference was significant ($P < 0.001$ by chi-square test). This may be due to the differences in the medical and legal systems between the US and Japan. In Japan, the MD in charge (chief MD) has wide power over the patient's treatment and thus also has wide liability. Therefore, the plaintiff simply sues the doctor in charge.

The second difference concerns the most common subspecialty of the defendant. Both in the US and Japan, the most common subspecialty of the defendants was surgery. However, a significant

difference was observed between the US and Japan in the rate of involvement of surgery among all defendants named. The rate for surgery in all defendants in the US (65%) was significantly higher than that in Japan (40%) ($P = 0.028$ by chi-square test). This may be due to the differences in medical systems between the US and Japan. In Japan, more physicians including gastroenterologists treat patients with IO. In general, physicians refer the patient to surgery when symptoms worsen or signs of inflammation appear. Therefore, the rate for internal medicine in Japan was higher than that in the US, whereas the rate for surgery in Japan was significantly lower than that in the US.

The third difference is in the amount of compensation. The median amount of compensation in the US was reported to be US\$1,043,100 (Choudhry et al., 2016). In the present study, the amount was US\$290,000, approximately one fourth that in the US. This may be due to such factors as the differences between the US and Japan in medical costs, costs of living, and the method by which compensation is calculated. Medical costs in Japan are much lower than those in the US.

4.2. Allegations by the patient

As allegations by the patient, delayed diagnosis and consequent inappropriate treatment was the most frequent in the present study (72%). We previously reported patients' chief allegations in cases related to Japanese gastroenterology (Hiyama et al., 2012). In that report, the most frequent chief allegation was delayed diagnosis (45%), followed by inappropriate treatment (18%), complications during the diagnostic procedure (17%), complications during the treatment procedure (12%), and lack of informed consent (8%). Combining delayed diagnosis with inappropriate treatment, the rate was 63%, similar to the rate for IO in the present study. However, neither complications during the diagnostic procedure nor lack of informed consent were typical allegations in the litigations pertaining to IO.

4.3. Risk-prevention strategies

Knowledge of the factors leading to preventable patient injury is needed to develop optimal strategies for reducing malpractice risk related to IO. On the basis of our study results, we suggest the following risk prevention strategies to decrease the number of malpractice claims related to this condition. First, the pathophysiology of IO including strangulation IO and possible clinical courses should be explained to the patient. Notifying the patient of the potential for emergent surgery may be an essential process to avoid disputes. Second, continued physician training in timely diagnostic and treatment techniques remains the principal method of preventing disputes. Several studies confirmed the importance of continued medical education and training in safe diagnostic and treatment techniques (Barakata et al., 2018; Kato et al., 2013). Third, it is important to establish practice guidelines, especially in areas vulnerable to litigation. Such guidelines offer the best method of decreasing errors leading to malpractice litigations (Beg et al., 2017; Kaminski et al., 2017). Fourth, physicians should recognize that delayed diagnosis of strangulation IO is a common cause of litigation. Improving diagnostic ability and thorough examination of each patient are essential.

4.4. Limitations

As in the US, most malpractice cases in Japan are settled out of court (Sasao et al., 2006). Approximately, 90% of malpractice cases in Japan are settled out of court, and the remaining cases lead to litigation (Nakajima, Keyes, Kuroyanagi, & Tatara, 2001). Court decisions are handed down in only approximately 30% of the litigated cases. The compromised and withdrawn cases are not reported or available for review; therefore, the denominator of the present study might have some bias. However, the aim of this study was to extract medical information from published court reports to determine sources of errors in cases requiring litigation. It is hoped that dissemination of the present results among physicians will serve as a risk prevention strategy for reducing both complications and malpractice claims pertaining to IO.

In conclusion, our data may aid in the design of risk prevention strategies to be used by MDs in treating IO. Treating the condition is inherently dangerous because delayed diagnosis of

strangulation IO may lead to patient death. Continued training in timely diagnostic and best treatment techniques remains the principal method of preventing disputes.

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Competing interests

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